



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,550	03/19/2001	Hideya Suzuki	501.39856X00	6806
20457	7590	10/28/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			NG, CHRISTINE Y	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,550

Applicant(s)

SUZUKI ET AL.

Examiner

Christine Ng

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/21/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities:

In line 3, "said base station" should be changed to "said mobile station".

Appropriate correction is required.
2. Claims 7, 17 and 18 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "said means to measure radio communication quality" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said storage means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 8, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,862,485 to Linneweh et al.

Referring to claim 1, Linneweh et al disclose in Figure 1 a base station (Element 101) for assigning a radio communication channel preferentially to a mobile (Element 112) that is making an attempt to communicate with said base station (Element 101) and call an application (a call to 911, poison control center, fire or police department) that is given high priority. Refer to Column 3, lines 36-51.

Referring to claim 2, Linneweh et al disclose in Figures 1 and 2 that the base station (Figure 1, Element 101) comprises a priority distinguishing means (Figure 2, processing device 201) to distinguish the priority of the object application (a call to 911, poison control center, fire or police department) from signal data of radio channel assignment request (Figure 1, system access request 124) sent from said mobile station (Figure 1, Element 112). Although the processing device 201 is located in the BSC 118, "a BSC 118 might reside at one or more of the base sites 101-105..." (Column 3, lines 32-34). Refer to Column 3, lines 36-53 and Column 6, lines 53-61.

Referring to claim 3, Linneweh et al disclose in Figures 1 and 2 that the base station (Figure 1, Element 101) comprises a storage means (Figure 2, processing device 201) to store mapping between a code (destination phone number or feature code) representing an application to be offered (a call to 911, poison control center, fire or police department) to said mobile station (Figure 1, Element 112) over a radio

Art Unit: 2663

communication channel, included in said signal data of radio channel assignment request (Figure 1, system access request 124), and the priority of the application. Refer to Column 3, lines 31-35 and lines 48-58 and Column 6, lines 53-61.

Referring to claim 4, Linneweh et al disclose in Figure 1 that the base station (Element 101) assigns a plurality of radio communication channels to said mobile station (Element 112) that is making an attempt to communicate with said base station (Element 101) and call an application (a call to 911, poison control center, fire or police department) that is given high priority. The base station 101 allocates to the mobile station 112 channels as they become available and also channels at other base stations 102-105 in case of handoff. Refer to Column 3, line 59 to Column 4, line 11 and Column 4, line 34 to Column 5, line 10.

Referring to claim 5, Linneweh et al disclose in Figure 1 that the base station (Element 101) comprises:

A means (not shown) to measure radio communication quality (bit error rate) of the channel between said base station (Element 101) and said mobile station (Element 112). Refer to Column 8, lines 46-49.

A control means (not shown) to make said base station (Element 101) assign a plurality of radio communication channels to said mobile station (Element 112) on the basis of said priority when radio communication quality (bit error rate) less than a predetermined quality-indicating-value (threshold bit error rate of 7%) has been measured by said means to measure radio communication quality. Refer to Column 8, lines 49-63.

Referring to claim 8, Linneweh et al disclose in Figures 1 and 2 that the means to measure radio communication quality calculates a ratio of the received time slots in error to the number of received time slots for a regular period. The base station 112 measures signal quality via a bit error rate (BER) determination. Refer to Column 8, lines 46-63. BER is the percentage of bits that have errors relative to the total numbers of bits received in a transmission.

Referring to claim 11, Linneweh et al disclose in Figure 1 a mobile station (Element 112) for sending a base station (Element 101) signal data of radio channel assignment request (system access request 124) including a code (destination phone number or feature code) representing an application (a call to 911, poison control center, fire or police department) to be offered over a radio communication channel. Refer to Column 3, lines 37-58 and Column 6, lines 53-61.

Referring to claim 12, Linneweh et al disclose in Figure 1 the mobile station (Element 112) comprising a control means for handling data transmission/reception over a plurality of radio communication channels including additional channels when it is notified that additional channels are assigned to it from said base station (Element 101). The BSC 118 "reserves one or more communication resources at the base site 101 to maintain a pool of reserved communication resources to support the priority call of the communication unit 112..." (Column 3, lines 62-65). Additionally, the BSC 118 can "reserve communication resources at alternate base stations (e.g., 102-105) in anticipation...of a handoff of the communication unit 112 to one of the other base sites 102-105" (Column 4, lines 2-7).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,862,485 to Linneweh et al in view of U.S. Patent No. 6,539,227 to Jetzek et al.

Referring to claim 6, Linneweh et al disclose in Figures 1 and 2 that the base station (Figure 1, Element 101) comprises a transmission/reception means (Figure 2, processing device 201) to transmit/receive data over said radio communication channels. Refer to Column 3, lines 31-35 and Column 6, lines 53-56. However, Linneweh et al do not disclose that the transmission/reception means transmits/receives data of the same contents over the radio communication channels.

Jetzek et al discloses in Figure 1B that during a soft handoff process, the mobile station receives the same information from the source and target base stations. This allows the mobile station to smoothly transmission from the serving base station to the target base station. Also during soft handoff, since the mobile station is receiving the same information from both sources, it can improve its received signal quality by performing diversity selection/combining of the two received signals. Refer to Column 1, lines 47-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the transmission/reception means

transmits/receives data of the same content over the radio communication channels; the motivation being to support soft handoff, thereby permitting the mobile station to smoothly transition between base stations and to improve its received signal quality.

Referring to claim 14, refer to the rejections of claims 1-6 and 11.

Referring to claim 15, Linneweh et al disclose that the radio communication channels are provided in time slots by time division. Refer to Column 4, lines 11-20.

Referring to claim 16, refer to the rejection of claim 8.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,862,485 to Linneweh et al in view of U.S. Patent No. 6,704,577 to Hughes.

Linneweh et al do not disclose that the base station comprises a paging means for broadcasting the paging information on available applications.

Hughes discloses that "a base station broadcasts messages which are received by all remote units within the base station coverage area on a "paging channel" (Column 5, lines 23-25. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the base station comprises a paging means for broadcasting the paging information on available applications; the motivation being so that all mobile stations within the base station's cell will be informed of the applications, since the mobile stations continually monitor the paging channel. Refer to Column 5, lines 25-37.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,862,485 to Linneweh et al.

Linneweh et al do not specifically disclose the mobile station comprising a control means for selecting and handling data received over a channel that is regarded as being the most reliable out of the data received over a plurality of radio communications channels assigned to it.

However, Linneweh et al disclose that the BSC 118 can "reserve communication resources at alternate base stations (e.g., 102-105) in anticipation...of a handoff of the communication unit 112 to one of the other base sites 102-105" (Column 4, lines 2-7). When the signal quality of the serving base station falls below a threshold, the BSC 118 transfers the call to a target base station, where which a communication channel has already been reserved and the signal quality is stronger. Refer to Column 8, lines 46-63. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the mobile station comprises a control means for selecting and handling data received over a channel that is regarded as being the most reliable out of the data received over a plurality of radio communications channels assigned to it; the motivation being that so that when the signal strength of one channel falls below a threshold, the mobile station can be redirected to another channel with a stronger signal strength, thereby preventing loss of information.

Allowable Subject Matter

11. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2663

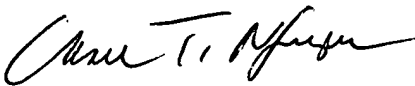
Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng *CN*
October 18, 2004


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600